EXHIBIT X

FILED UNDER SEAL

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Attorneys for Google LLC

UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

SAN FRANCISCO DIVISION

GOOGLE LLC,	CASE NO. 3:20-cv-06754-WHA Related to CASE NO. 3:21-cv-07559-WHA
Plaintiff,	
vs.	**GOOGLE LLC'S SUPPLEMENTAL RESPONSIVE DAMAGES CONTENTIONS PURSUANT TO PATENT LOCAL RULE 3-9**
SONOS, INC.,	
Defendant.	

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1 Invalidity of Claim 13 of U.S. Patent No. 9,967,615 and Other Issues, § XI, and the deposition

2 testimony of Dr. Schonfeld and Dr. Bhattacharjee. Google has shown that these technically and

3 commercially acceptable non-infringing alternatives existed at the time of the hypothetical

4 negotiation in this case. Google has also provided evidence and expert testimony confirming that:

5 (i) the materials and personnel needed to implement the non-infringing alternative were readily

6 available; (ii) the non-infringing alternative was well known in the field at the time of infringement;

7 and/or (iii) all of the necessary equipment, know-how, and experience to use the non-infringing

8 alternatives were available at the time of first alleged infringement.[39]

9   The fact that a non-infringing alternative has not been implemented does not mean that

10 option is not feasible or not acceptable. Licensees or alleged infringers do not simply switch to

11 existing alternatives or develop new available alternatives each and every time they are accused of

12 infringement.   To do so any time there is disagreement about validity, enforceability, and

13 infringement of a patent would be unreasonable and disruptive. The decision not to switch to an

14 alternative is not, by itself, evidence that such a switch was not possible or would not have occurred.

15 In addition to the exemplary non-infringing alternatives to the '885 and '966 patents at the time of

16 the hypothetical negotiation, Google also had several technically and commercially acceptable non-

17 infringing alternatives to the '033 patent at the time of the hypothetical negotiation.   Examples

18 include:

19   • Playback of a local queue on the sender device, such that the sender device can
          queue a data structure that stores the list of videos selected for playback and the
20   sender device would play videos directly from that queue—and thus not from a
          "remote playback queue provided by a cloud-based computing system associated
21   with a cloud-based media service." Google estimates that this modification would
          have required three software engineers working for approximately less than three
22   months to implement, as well as additional time to conduct QA testing.[40] Google
          expects that end users would have found this alternative acceptable as the change to
23   playback from a local queue would not be discernible to a user and would not
          impact the YouTube experience.
24
      • Continuing playback on a control device after a user transfers playback to a
25   receiver device rather than stopping it. Without any external pressures, Google

26 [39] *LaserDynamics, Inc. v. Quanta Computer, Inc.*, No. 2:06–CV–348, 2011 WL 197869, *3 (E.D.
    Tex. 2011) (*citing Grain Processing Corp.*, 185 F.3d at 1353-54).
27 [40]   In 2020 the annual Google compensation cost for an individual Engineer in the San Francisco
    Bay Area was between $199,000 and $741,000 depending on level (with levels ranging between L2
28 and L7).

estimates that this design change would take 2-3 software engineers working full-time for approximately a few weeks to complete, as well as additional time to conduct QA testing. Google also expects that this design change would be acceptable to end users given that the user would have the benefit of viewing the video both on their phone and on the television or of continuing to listen to music on the mobile device if they move to a different room.

- Cloud service, not playback device, communicates with cloud servers to identify the next one or more media items in the remote playback queue, similar to Google's current approach with "Onesie" and/or Streaming Watch. Google estimates that this design change would take up to five software engineers working full-time approximately one year to complete, as well as additional time to conduct QA testing. Google also expects that this design change would be acceptable, and perhaps even preferable, to end users given that it may lead to material efficiencies in terms of latency.

Of course, Google could complete this design change more quickly if needed, for example by adding more engineers to the team working on the change, which would in turn compress the schedule. Google also expects that these design changes would not incur any additional hardware or server costs.

Google does not believe that it infringes the '033 patent or that the '033 patent is valid. Under the hypothetical negotiation construct, where validity and infringement of the '033 patent is assumed, the timeframe to implement the foregoing non-infringing alternatives would be shorter. On an *ex ante* (*i.e.*, forward looking) basis, which is the purpose of the hypothetical negotiation construct, it would take lesser time to implement these non-infringing alternatives.[41]

Sonos also continues to disregard that Google had several technically and commercially acceptable non-infringing alternatives to the '885 and '966 patents at the time of the hypothetical negotiation. Examples include:

- The accused Google products are themselves non-infringing alternatives to all the Asserted Claims.

- When the accused "standalone" speaker is added to a target group, and it matches

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[41]   The overriding principle is the importance of evaluating a decision to commit to a technology on an ex ante (*i.e.*, before the event) basis over the next-best alternatives that were available at the time. This is an analytical tool that helps avoid what is often referred to as "lock in" or "patent hold up." *See* Daniel G. Swanson, & William J. Baumol, *Reasonable and Nondiscriminatory (RAND) Royalties, Standards Selection, and Control of Market Power*, 73 ANTITRUST L. J. 10 (2005); Joseph Farrell, et al., *Standard Setting, Patents, and Hold-Up*, 74 ANTITRUST L. J. 610 (2007); Joseph S. Miller, *Standard Setting, Patents and Access Lock-In: RAND Licensing and Theory of the Firm*, 40 INDIANA L. REV. 351, 358 (2007); *Commonwealth Sci. & Indus. Rsch. Organisation*, 809 F.3d at 1302.

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1   the music (or silence) of the target group.

2   • A speaker that is already a member of one group will be forced out of this (first)
3   group when a user attempts to add the speaker to a new (second) group. No
     speaker can be a member of more than one group at the same time.

4   Google also expects that these design changes would not incur any additional hardware

5   costs. Google estimates that these design changes would take one engineer approximately one day

6   to implement. as well as additional time to conduct QA testing.   In fact, Google has already

7   implemented the "no standalone mode" alternative discussed above—Google has released a new

8   version of its source code through software updates to 25% of the accused Google products with a

9   display and plans to continue rolling out the change to the remaining accused products through

10   December 2022.   Sonos contends that this NIA was "not set forth in either Google's Responsive

11   Damages Contentions pursuant to Patent Local Rule 3-9 or Google's response to Sonos's

12   Interrogatory No. 18," but this is incorrect. Google's February 25, 2022 Responsive Damages

13   Contentions specifically disclosed this specific NIA:

14   Indeed, Sonos disregards that Google had technically and commercially
          acceptable non-infringing alternatives to the '885 and '966 patents at the time
15   of the hypothetical negotiation. As just one example, when a speaker is added
          to a new group, Google could stop the current playback on the added speaker.
16   Google estimates that this design change would take one engineer
          approximately one day to implement.
17
          Google LLC's Responsive Damages Contentions Pursuant to Patent Local Rule 3-9 at 10.
18
      In addition, Google has provided a supplemental response to Sonos's Interrogatory No. 18.
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          Sonos asserts that this NIA would not be commercially acceptable because it would
20
      "dramatically degrade the user experience." Sonos's Second Supplemental Damages Disclosures
21
      at 36. First, Sonos fails to provide any surveys, studies, or quantitative analysis showing that the
22
      claimed features drive demand for the accused products, and that without them, Google' customers
23
      would have found the non-infringing alternative to be unacceptable. Instead, the NIA would
24
      improve the user experience because it would conform to a user's expectation that a speaker joining
25
      a group would match the music or silence of the group.
26
          Sonos's examples of degradation in the user experience are illogical. If a user did not want
27
      to wake up a sleeping baby with music in a different area of the house, he or she would not add a
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1   of the CIA, including because, pursuant to that agreement, Google owns any intellectual property

2   embodied by the now-accused technology.   Moreover, there was no gross negligence, willful

3   misconduct, breach of confidentiality, or willful misappropriation on Google's part. Accordingly,

4   Google contends that any recovery for the purported infringement of the '033 patent is limited to

5    $10,000. Sonos fails to take this into consideration or discuss this issue at all.

6   **II.   IDENTIFICATION OF ADDITIONAL INFORMATION REQUIRED**

7   Pursuant to Patent L.R. 3-9, Google identifies the following information and discovery

8   required from Sonos to provide a fulsome response to Sonos's Second Supplemental Damages

9   Disclosures, to the extent this evidence is not already precluded by Sonos's failure to identify it in

10   the damages contentions:

11   • Any valuations or related evidence of the patents-in-suit;

12   • Documents regarding the incremental value or demand for the technology claimed by

13   the patents-in-suit; and

14   • Expert reports and testimony.

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     DATED: November 30, 2022   QUINN EMANUEL URQUHART & SULLIVAN,
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CERTIFICATE OF SERVICE

2   The undersigned hereby certifies that all counsel of record who have consented to electronic

3   service are being served with a copy of this document via email on November 30, 2022.

4   */s/ Jocelyn Ma*
                                                      Jocelyn Ma

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